

REMARKS

Claims 1, 2 and 4-41 are pending. By this Response, claims 1 and 7 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

Applicants appreciate the indication that of 8, 9, 20 and 29 containing allowable subject matter.

The Examiner rejects claims 1-7, 10-16, 19, 20, 22-27, 30-35 and 38-41 under 35 U.S.C. §102(e) as being anticipated by Zheng, et al. (U.S. patent No. 6,184,816); claims 17 and 18 under 35 U.S.C. §103(a) as being unpatentable over Zheng, et al. in view of Small (U.S. Patent No. 5,093,563); and claims 21, 36 and 37 under 35 U.S.C. §103(a) as being unpatentable over Zheng in view of de Groot, et al. (US. Patent No. 6,327,039). These rejections are respectfully traversed.

For purposes of brevity, applicants hereby incorporate by reference the arguments filed in the Response dated July 25, 2003.

Independent Claim 1

Claim 1 recites, *inter alia*, wherein the course of action taken by said flying object is determined based on a prediction result, the prediction result being based on the observation data obtained, the records of courses of action taken by prior flying objects encountering the same observation data, and the records of events encountered, which are stored as data sets in the memory of the base station. (emphasis added).

The Examiner asserts that Zheng provides the claim prediction results that is based on several factors including the courses of action taken by other flying objects under the same circumstances and conditions encountered by the flying object receiving the information. Applicants respectfully disagree.

Zheng teaches the uploading of information to airplanes to determine weather conditions or CAT's (clear air turbulence). Zheng does not provide information on what actions other airplanes have performed under the same circumstances and conditions. The Office Action states that column 17, lines 17-27 teaches the claim records of courses of action taken. However, this section of Zheng merely teaches the implementation of different icons on a display that represents in one embodiment, the weather hazards geographical location relative to the aircraft and in a second embodiment, the weather hazards altitude relation to the aircraft and the weather hazards relative geographic location. This section does not teach or suggest providing information in regard to courses of action by other flying objects on which in part a prediction result is made.

Accordingly, for this reason alone a rejection under 35 U.S.C. §102 can not be maintained. Accordingly, reconsideration and withdrawal of the rejection in regard to claim 1 and its dependent claims are respectfully requested.

Independent Claim 7

Claim 7 recites, *inter alia*, said base station transmitting to said flying object necessary data from said information for determining a course of action to be taken by said flying object...wherein said base station transmits a signal for operating said flying object to control the operation of said flying object based on the determined course of action. (Emphasis added).

The Examiner continues to maintain that Zheng teaches the claimed controlling of a flying object by a ground station based on a detected course of action. The Examiner cites column 16, lines 30+ in support of this allegation. Applicants respectfully submit that nowhere in Zheng including column 16, line 30+ teaches the feature of controlling the actions of the flying object based on the determined course of action.

First, Zheng does not teach the determination of a course of action by a navigation system. Zheng teaches the provision of information to an aircraft and the processing of the information to determine what that information means. For example, whether a CAT has been located or other severe weather conditions have been located, etc. Once this information is processed it is up to the pilot to determine a course of action to steer the airplane away from the severe weather systems. See column 6, lines 17-20 and 24-26.

Second, column 16, lines 30+ discloses the use of weather products, the uplink of the weather products to an aircraft, the conversion to the weather products to visual depictions and the display of the visual depictions in the

aircraft. Applicants simply do not understand the Examiner's logic in how the above features of claim 7 are gleaned from Zheng and particularly how a determined course of action for a flying object is controlled based on uplinked weather products as disclosure in column 16, lines 30+ of Zheng. If the Examiner wishes to maintain this line of rejection, the Examiner is respectfully requested to point out the particular aspects of Zheng which disclose applicants above noted claimed features.

In view of the above, applicants respectfully request reconsideration and withdrawal of the rejection in regard to claim 7.

Independent Claims 22, 38 and 40

Claim 22 recites, *inter alia*, flying object inter connection means for interconnecting directly with a plurality of flying objects where information provided as common information for an application of said flying objects is stored in each of said flying object and the course of action to be taken by each of said flying objects is determined on the basis of said information and observation data from said meteorological observation means.

Claim 38 recites, *inter alia*, a database terminal for receiving said observation data, determining and transmitting prediction results to said flying object for determining a flight path for said flying objects based on said prediction results, wherein observation data is received by said database terminal from a plurality of flying objects.

Claim 40 recites, *inter alia*, an observation apparatus mounted on at least flying object for collecting and transmitting observation data and a database terminal mounted on a second flying object for receiving said observation data, determining and transmitting prediction results for determining a flight path for said second flying object based on said prediction results, wherein said database terminal determines said prediction results based on received observation data and prior observation data from said at least one flying object.

Each of the above claims recite the direct communication between one or flying objects in which data is exchanged. This data along with other observational data is used to determine a course of action or flight path for one of the flying objects. Thus, not only do the flying objects communicate with a ground station, but they also communicate with each other to obtain observational data in order to determine a prediction result and a course of action.

Applicants respectfully submit that Zheng fails to teach or suggest the above noted features in which two flying objects can communicate with each other to exchange data or to determine a prediction result or a course of action. The Examiner alleges that communication between two flying objects is taught in column 16 of Zheng. Applicants respectfully disagree.

Column 16 of Zheng discloses the communication of aircraft with a ground station to obtain atmospheric data. Further, it is easily discernable

from Fig. 4a of Zheng disclosed in column 16 that each aircraft is shown communicating with a ground station and not directly with each other. Lines 41-46 in column 16 of Zheng state “the data is downlinked via an antenna 58 to a ground station 60 where the data is used to assemble and refine weather products in conjunction with other available weather data 61. The weather products are uplinked to originating aircraft 54 and other aircraft 62, 64.” Thus, it is clear that information is only relayed from a ground station to each of the aircraft three separate aircraft illustrated.

Therefore, the Examiner has failed to establish a proper rejection under 35 U.S.C. §102. Accordingly, reconsideration and withdrawal of the rejection in regard to claims 22, 38, 40 and their dependent claims are respectfully requested.

Further, Small and de Groot fail to make up for the deficiencies of Zheng. Accordingly, reconsideration and withdrawal of the rejections involving Small and de Groot are respectfully requested.

### Conclusion

For at least these reasons, it is respectfully submitted that claims 1, 2 and 4-41 are distinguishable over the cited references. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J.

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Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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MRC/CJB:cb  
0054-0237P

Attachment(s)

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